First Named Inventor: Chuan-Cheng Tu Application No.: 10/657,379

-2-

## **AMENDMENTS TO THE CLAIMS**

Please amend claims 1, 41, 43-45 and 47-50, and cancel claims 42 and 46 without prejudice, so that the status of the claims is as follows:

- 1. (Currently amended) A light emitting diode (LED), comprising:
  - a semiconductor layer of a first polarity;

an active layer, located on the semiconductor layer of the first polarity; and

a semiconductor layer of a second polarity, located on the active layer, wherein at least

one side of a stacked structure at least composed of the active layer and the

semiconductor layer of the second polarity has a wave-shape border in a top view

of the LED, thereby reducing the probability of reflecting the light emitted from the

active layer, thus making light emitted from the active layer penetrate through the

at least one side and be emitted outside the LED, wherein the wave-shape border

is formed from an etched surface, and the etched surface is formed by employing

one single mask.

- 2. (Original) The LED according to claim 1, wherein the semiconductor layer of the first polarity is made
- of GaN.
- 3. (Original) The LED according to claim 1, wherein the active layer is made of InGaN.
- 4. (Original) The LED according to claim 1, wherein the semiconductor layer of the second polarity is

made of GaN.

5. (Previously presented) The LED according to claim 1, wherein the wave-shape border in the top view

of the LED is selected from a group consisting of triangular wave-shape border, semicircular wave-shape

border, and parabolic wave-shape border.

Application No.: 10/657,379

6. (Original) The LED according to claim 1, wherein a deformed dimension of the at least one side is greater than an equivalent emitting wavelength of the LED.

7. (Original) The LED according to claim 1, wherein an incident angle of the light emitted from the active layer to the at least one side is less than a reflective critical angle of the at least one side.

8. (Original) The LED according to claim 1, wherein at least the active layer and the semiconductor layer of the second polarity therein further have at least one valley penetrating from an upper surface of the semiconductor layer of the second polarity to a lower surface of the active layer, thereby increasing an efficiency of emitting the light emitted from the active layer to the outside of the LED.

9. (Original) The LED according to claim 8, further comprising a substrate located under the semiconductor layer of the first polarity, wherein the at least one valley further reaches to an upper surface of the substrate.

10-40. (Canceled).

41. (Currently amended) A light emitting diode (LED), comprising:

a semiconductor layer of a first polarity;

an active layer, located on the semiconductor layer of the first polarity; and a semiconductor layer of a second polarity, located on the active layer, wherein at least one side of a stacked structure at least composed of the active layer and the semiconductor layer of the second polarity has an uneven surface, thereby reducing the probability of reflecting the light emitted from the active layer, thus making light emitted from the active layer penetrate through the at least one side and be emitted outside the LED, wherein the uneven surface of the stacked structure is an etched surface formed by employing one single mask.

First Named Inventor: Chuan-Cheng Tu Application No.: 10/657,379

-4-

43. (Currently amended) The LED according to claim 41, wherein a deformed dimension of the at least

one side is greater than an equivalent emitting wavelength of the LED the uneven surface of the at least one

side in a top view of the LED has a wave-shape border, and the wave-shape border in the top view of the

LED is selected from a group consisting of triangular wave-shape border, semicircular wave-shape border,

and parabolic wave-shape border.

44. (Currently amended) The LED according to claim 41, wherein an incident angle of the light emitted

from the active layer to the at least one side is less than a reflective critical angle of the at least one side a

deformed dimension of the at least one side is greater than an equivalent emitting wavelength of the LED.

45. (Currently amended) The LED according to claim 41, wherein an incident angle of the light emitted

from the active layer to the at least one side is less than a reflective critical angle of the at least one side.

46. (Canceled)

47. (Currently amended) The LED according to claim [[46]] 41, further comprising a substrate located

under the semiconductor layer of the first polarity, wherein the at least one valley further reaches to an

upper surface of the substrate wherein at least the active layer and the semiconductor layer of the second

polarity therein have at least one valley penetrating from an upper surface of the semiconductor layer of the

second polarity to a lower surface of the active layer.

48. (Currently amended) The LED according to claim [[41]] 47, wherein the semiconductor layer of the

first polarity is made of GaN further comprising a substrate located under the semiconductor layer of the

first polarity, wherein the at least one valley further reaches to an upper surface of the substrate.

49. (Currently amended) The LED according to claim 41, wherein the active layer is made of InGaN

semiconductive layer of the first polarity is made of GaN.

First Named Inventor: Chuan-Cheng Tu Application No.: 10/657,379

-5-

50. (Currently amended) The LED according to claim 41, wherein the semiconductor layer of the second polarity is made of GaN active layer is made of InGaN.

51. (Previously presented) The LED according to claim 41, wherein the semiconductor layer of the second polarity is made of GaN.